

Digital Arts Sciences + Humanities (DASH) Framework

This document provides an overview of the history of work relating to Digital Arts Sciences + Humanities, outlines priorities for additional strategic focus, recommends groups for strategic planning, describes core service areas, and describes interim decision-making workflows.

[Digital Arts Sciences + Humanities \(DASH\) Framework](#)

[Executive Summary](#)

[Background](#)

[DASH Objectives](#)

[History](#)

[DASH 2013–2015 Goals](#)

[Groups for investigative and planning work](#)

[Links to Strategic Initiatives](#)

[DASH Service Model](#)

[DASH Service Areas](#)

[Area 1: Research Project Consultation](#)

[Area 2: Digital Instruction + Pedagogy](#)

[Area 3: Workshops + Training](#)

[Area 4: Community Building](#)

[Sustainability Plan](#)

[Governance and Personnel](#)

[Budget](#)

[Program Assessment](#)

[Appendix A: Links to the University Libraries' 2011-2013 Strategic Directions](#)

Executive Summary

Digital Arts Sciences + Humanities (DASH) is a pilot effort to explore and support work at the intersection of disciplines that employs digital technologies to address humanistic and artistic questions in new ways. Libraries play a critical role in advancing DASH research and teaching efforts through their expertise in supporting knowledge creation and curation, interdisciplinarity, knowledge of emerging technology, and collaborative ethos.

The DASH Framework is a working document to gather and guide elements of an emerging program. It connects disparate pilot elements, highlights connections with Libraries strategic initiatives, and lays out future work and developing campus connections.

There are several core principles that are guiding the DASH development process:

1. **The DASH pilot is seeding knowledge on campus.** By hosting events and providing training to libraries staff, students, and faculty, more individuals will be able to sustain DASH efforts through community discussion, peer training, improved consultations, and teach the teacher

models.

2. **The Libraries serve as a hub for DASH efforts, not sole service provider.** DASH assumes a consultation and referral model, employing expertise throughout the libraries and throughout campus. Deeper partnerships are being cultivated on campus to support this model.
3. **DASH is piloting to identify sustainable models.** This period of DASH development is about testing consultation services and exploring best practices for bringing DASH into both research and teaching. The pilots are providing necessary data on campus interest, resource demands, and efficacy that will inform deeper plans for ongoing sustainability and libraries roles.
4. **DASH complements existing strategic initiatives.** Most large-scale strategic questions for DASH will be resolved by acting as a facet of existing initiatives, such as including a DASH perspective in other strategic groups.
5. **The DASH service model leverages existing Libraries expertise.** The proposed services align with core Libraries services: research consultations, instructional support, and training and development. These are provided in consultation with Libraries leadership, as appropriate.

These principles are helping to coalesce the work of the DASH program and lay the foundations for future sustainability. At present two groups are needed to guide the efforts of the emerging program and build the next elements for sustainable support:

DASH Steering Committee: Meets regularly for direction setting and resourcing discussions.
Participants: TBD based on expertise and decision-making considerations.

Skills for DASH: A fixed-term project team to develop curricula and plans for skill building for graduate students and University Libraries staff (identifying training needs, recommending approaches, session or curriculum planning). The plans will then be piloted in summer 2014.
Participants: Libraries staff and representatives from critical units on campus. **Timing: Present/early 2014**

Background

DASH (Digital Arts Sciences + Humanities) is a cross-disciplinary initiative organized around emerging digital tools and methodologies for scholarly, pedagogical, and artistic projects. The name sends a signal to campus scholars that this emergent research involves collaborating broadly across disciplinary boundaries, both utilizing and critically engaging with data-driven and multimodal methodologies, leading to scholarly transformations and knowledge creation for all partners. Nationally and internationally much of this work is identified as “digital humanities,” but “DASH” has had greater resonance on this campus and better communicated the open and inclusive nature of the potential partnerships.

DASH Objectives

- Foster a robust and active community of faculty, students, and staff engaging in interdisciplinary and/or data-driven work that involves digital arts, sciences, and humanities in both research and teaching contexts.
- Support the full lifecycle of DASH research and teaching by leveraging library expertise through consultative services, strategic partnerships, and critical referrals.
- Build skills for DASH consultations and partnerships among university and regional practitioners and support entities.

History

Work in the area of DASH has been underway for a number of years. Several earlier groups have fed into the present state of the initiative. The Libraries E-Science and Data Services Collaborative and the e-Scholarship Collaborative laid the foundation prior to 2010 for work in this area.

From 2011 to 2013 the Digital Humanities 2.0 collaborative of the Institute for Advanced Studies was convened to develop a community interested in “advancing artistic creation and scholarly research in the humanities by exploring digitization and Web 2.0 technologies.” This IAS collaborative held monthly events with aim of “envisioning the next generation of digital humanities tools, techniques, and approaches.”

Also in 2011, the Research Support Services Collaborative (RSSC) was launched with the charge of identifying and leveraging common solutions to evolve towards an overall coherent strategy for support in emerging areas of research support. The Digital Arts and Humanities (DAH) Working Group was tasked with a focus on digital humanities-related areas and given several potential directions to pursue, including assessing community needs and institutional assets, investigating models of peer institutions, and identifying needed tools and infrastructure in light of available collaborative options. To this end, the working group conducted an extensive environmental scan of digital humanities centers, available tools, and key projects. The group also interviewed and surveyed University of Minnesota faculty to gain more information about local needs. This investigation resulted in a 2012 report and set of recommendations for future work.

In response to these recommendations, the DAH working group formed two project teams in 2013 to pursue the goals of building community, identifying service partners, and simplifying pathways to support. This led to hosting a summit for support units on campus to discuss infrastructure, policy, and resources and the development of SparkFest, a 1.5 day conference for faculty, technologists, and

librarians to network and learn about new projects and tools.

The DASH investigation raised the issue of defining data curation workflows and preserving projects related to digital arts and digital humanities. These questions were being addressed through the Data Management, Access, and Archiving Working Group (DAWG) of RSSC and through the development of an Agenda for Deepening Library Support for Research for the ARL E-science Institute. The 2013 Data Curation Project pilot has substantively initiated work on data curation workflows and has a strong impact on this question for humanities scholars.

DASH 2013–2015 Goals

The goals are drawn from recommendations in the 2012 Digital Arts and Humanities Report and DASH-related activities initiated after the release of the report. These goals reflect areas related to DASH needing further attention (i.e., planning and resourcing) as indicated by an examination of user needs to date.

- Examine infrastructure needs of DASH scholars, organizational capacity, external tools and infrastructure, and make recommendations for resource and infrastructure commitments and provisioning
 - *Strategies:* DASH Infrastructure & Partnerships group; discussions of DASH Steering Committee
- Articulate distributed service model of support for DASH work, addressing issues of sustainability and exploring regional and national opportunities
 - *Strategies:* DASH service pilots; DASH Course and Curriculum Sustainability project group; DASH Research Partnerships Sustainability project group; DASH Infrastructure & Partnerships group
- Build skills for DASH consultations and partnerships among university practitioners and support entities
 - *Strategies:* Skills for DASH group plans and implements staff-side education programming and projects; development of education series for campus
- Facilitate the incorporation of DASH tools and methods into courses and curricula as a means of meeting university goals for technology enhanced learning
 - *Strategies:* Pilot models of infrastructure integration; project group to explore and recommend sustainable models; coordinate with eLearning group
- Develop appropriate and effective content creation infrastructure and services for DASH scholars (i.e., faculty, staff, students)
 - *Strategy:* Contributions to the Content and Copyright group
- Provide deeper access to collections and facilitate data sharing by DASH scholars locally and externally by building APIs for local and consortial collections, identifying necessary infrastructure, strengthening community knowledge of open data, and promoting effective data curation workflows.
 - *Strategies:* Contributions to the Data Curation group; investigations and recommendations from the DASH Infrastructure & Partnerships group (particularly with regard to APIs)
- Develop a regional community of practice around DASH through programming, virtual networks, coordinated promotion and branding, coordinated professional development, and collaborative projects
 - *Strategies:* Regional Steering Committee; Fall 2014 planning summit

Groups for investigative and planning work

Steering groups:

These groups meet on an ongoing and periodic basis to guide strategy and direction setting.

- **DASH Steering Committee:** Meets every 3 months for direction setting, resourcing discussions, and planning. Participants: TBD based on expertise and decision-making considerations.
- **DASH Regional Steering Committee:** Meets to plan coordination of training and services and to identify shared opportunities. Participants: UMN-TC, Macalester, St. Olaf, Carleton, Augsburg, SCSU, UMN-Duluth, community colleges; mix of representatives from libraries, faculty, and grad students.

Project teams:

These groups work for a fixed term, addressing a specific issue. Membership is driven by needed expertise and perspectives.

- **Skills for DASH:** A project team develops curricula and plans for skill building for graduate students and University Libraries staff (identifying training needs, recommending approaches, session or curriculum planning). The plans will then be piloted in summer 2014. Participants: Determined through call for interest. **Timing: Present/early 2014**
- **DASH Course and Curriculum Sustainability:** This 3-month planning team will develop and model recommendations for a sustainable approach to integrating DASH tools and methods in courses and curricula based on prior examples and findings from a year of piloting DASH course-integration approaches. This work has links to the eLearning initiative (i.e., this may be akin to determining a sustainability plan for eLearning and deep course collaboration), and this work may be homed with a related group. Participants: Determined through expertise needs. **Timing: Begins May 2014**
- **DASH Infrastructure & Partnerships:** A fixed term planning team to discuss technological infrastructure, support, and service provisioning for DASH. The team will also investigate existing service agreements. In concert with campus partners, the team makes recommendations articulating UL offerings, campus offerings, partnerships, and service commitments. Participants: representatives from the Libraries and core partner units on campus. **Timing: Fall 2014**
- **DASH Research Partnerships Sustainability:** This 3-month planning team will review local examples of research consultations and project partnerships in order to develop recommendations for a sustainable approach to DASH research consultations and intensive research partnerships. Participants: Determined through expertise needs. **Timing: Spring 2015**

Related groups:

- **Data Management Services Collaborative:** led by Lisa Johnston, with representatives from Libraries' Departments, including Arts & Humanities; this group will address data management education, DMP consultation services, outreach, staff education, and user needs assessment. This group is the effective venue to address DASH-related issues of facilitating data sharing, identifying necessary infrastructure, strengthening community

knowledge of open data, and promoting effective data curation workflows.

- **Content and Copyright group:** led by Joy Kirchner, DASH rep on the planning group; this group will likely address DASH-related goals of determining effective content creation strategies and infrastructure for DASH scholars.

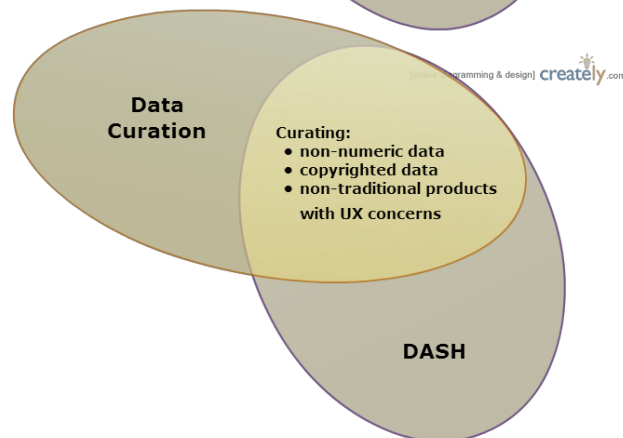
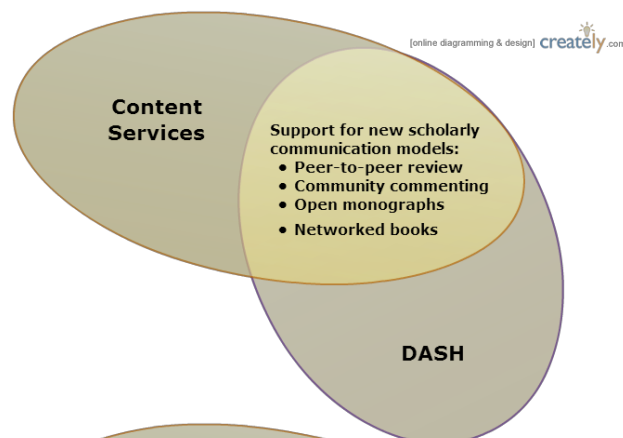
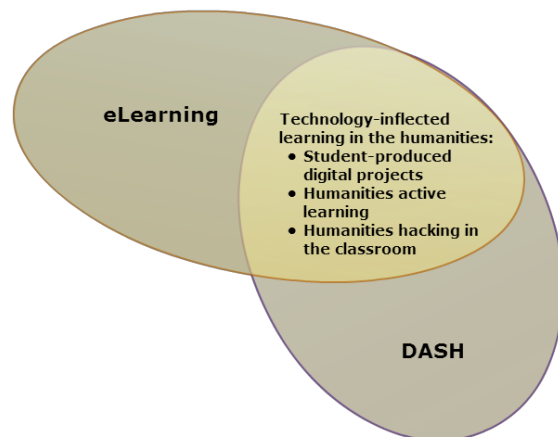
Links to Strategic Initiatives

Work in the DASH initiative has multiple intersections with the Libraries' 2011-2013 Strategic Directions (Appendix A), and these directions helped to guide the activities of the DAH working group. DASH has multiple areas of overlap with the 2013 University Libraries Strategic Initiatives: eLearning, Content Services, Data Curation, and Interdisciplinary Research. Functionally, the DASH initiative serves as a facet of each of these initiatives. Some core questions raised by DAH and DASH may be best addressed within groups organized in those strategic areas, and other questions are independent of the strategic initiative areas or distinct enough to warrant a separate project team or steering group.

eLearning: Integration of DASH tools and methods into courses provides a different facet of technology-inflected learning than is seen in recent MOOC and flipped classroom pilots. Building different types of student digital projects (such as Omeka online exhibits, multimedia timelines, app development, visualization projects, and group code creation) into courses provides new opportunities to explore collaboration models. Similar to MOOC and other eLearning work, the DASH-related humanities active learning pilots raise questions about support sustainability.

Content Services: Scholars working in DASH areas raise questions for the Libraries about how to support emerging models of scholarly communication. In particular, new modes of peer review and community interaction around work, open and networked monographs, and support for networked projects.

Data Curation: DASH workflows and project outcomes raise data curation questions that are different from data curation in the sciences and some social sciences. For DASH projects to have long-term success, the Libraries will need to determine how to curate work sets containing copyrighted materials, non-numeric data, and non-traditional research outputs (i.e., beyond textual monographs and journal articles).



Interdisciplinary Research: The name of the DASH initiative reflects the interdisciplinary nature of the affiliated work. While DASH necessarily includes combinations of humanities, arts, and sciences to be effective and innovative, DASH does not encompass all interdisciplinary research. DASH collaborations typically feature employing digital technologies to address humanities and artistic questions in new ways but produce new knowledge for all partners. It is worth emphasizing as a point of distinction that arts or humanities elements are required components in DASH collaborations, and that is not true of all interdisciplinary research of strategic interest on campus. To that end, the Libraries' initiative on Interdisciplinary Research in the Sciences is presently focused on advancing the University's MNDrive program. Identifying and reducing barriers to interdisciplinary research and teaching is an ongoing goal to advance work in DASH areas, and that fits neatly within a broader conversation benefiting all disciplinary combinations.

DASH Service Model

Previous investigation and strategic planning work aimed at advancing university engagement with DASH-related scholarly, pedagogical, and artistic projects indicates the University Libraries can have a significant impact by offering services in four specific areas of focus. These services build on core areas of expertise in the University Libraries and are described more fully below.

The service model for DASH is currently in a pilot phase. Multiple models of support are being tested for campus fit, effectiveness, and sustainability issues. The [Sustainability Plan](#) section addresses interim mechanisms for service approval and plans for deeper reviews of sustainability issues in 2014 and 2015.

DASH Service Areas

Research Project Consultation	Digital Instruction + Pedagogy	Workshops + Training	Community Building
Education, guidance, and planning advice to actively advance research	Assistance for instructors to bring DASH tools and methods into the classroom in the form of course planning, tool selection, training, project guidance	Building knowledge and skills related DASH tools, methods, and issues via workshops and extended training series for Libraries staff, campus scholars, regional partners	Campus and regional events and virtual resources to foster the development of research partnerships and peer learning communities

An underlying assumption is that the expertise required to support DASH scholarship and teaching is dispersed throughout the University Libraries. This expertise includes, but is not limited to: content acquisition and access, project planning, tool recommendations & training, metadata standards, data

management & preservation, digitization, and content creation platforms. Project teams and referrals will be required for sustainable support. Similarly, the Libraries will need to provide critical referrals and leverage existing expertise and infrastructure on campus for full support of students, staff, and faculty. Example partners include U-Spatial, CLA-OIT, and the Minnesota Population Center.

3-Tier Model for Consultation/Collaboration

DASH-related services will also be offered in a range of depths depending on the opportunity and strategic fit. Tiers 1 and 2 would be offered more often than tier 3 due to levels of demand and service capacity.

1. *Limited consultations and referrals.* This includes meeting with an instructor or researcher on a limited basis (1-2 meetings) in order to provide guidance, a single workshop, or a specific referral to workshops that can assist people in moving projects forward.
2. *Closer collaborative consultation.* This involves multiple meetings and deeper planning. Examples include helping to design a course (and possibly teaching it at times during the semester), working with a group on a specific tool or methodology over the course of a semester, or developing a project plan with a researcher with some skill support. Tier 2 projects may require the development of an ad hoc support team, which will be developed as needed by the Digital Humanities Specialist.
3. *Deep collaboration.* This type of partnership would require large amounts of resources, including staff commitments, and would be developed strategically and less frequently, depending on opportunity for future growth and fit with strategic priorities. Recent examples include the Ojibwe project and the Zooniverse project. Tier 3 projects will require the development of a project support team, which will be developed by the DASH Steering Committee.

Area 1: Research Project Consultation

Project consultation is a core service to advance DASH work. Consultations involve providing education, guidance, and planning advice to actively advance research. The level of support provided varies depending on the project objectives, potential impact, organizational capacity, and sustainability. Services are delivered through a combination of in-Libraries experts and campus partners, with combinations driven by project needs.

Common activities:

Consultation and guidance in the areas of:

- Project planning and management
- Tool recommendation
- Metadata standards
- Digitization resources
- Content creation platforms
- Grant identification
- Data management planning

- Data and project curation
- Content acquisition
- Planning for reuse

Service team: Ad hoc teams will be developed based on the level of support available for a project and the needs of the particular project. The team formation process will be driven by the service tier (see above). Components may include project management and technology guidance by the Digital Humanities Specialist, content knowledge from the liaison librarian(s) for the department(s) involved, metadata expertise from Data Management & Access, programming support from Digital Library Services, or data curation support from the Data Curation core. Project consultations will also involve campus partners as appropriate. For example, projects requiring extensive GIS support may indicate a referral to USpatial.

Examples:

Tier 1 support: Consultation with a faculty member to discuss project concept and available tools, grants, and campus support units

Tier 2 support: Hands-on work with a graduate student to employ the GEPHI [data] visualization tool for a dissertation project over the course of several appointments

Tier 3 support: Ojibwe People's Dictionary co-development

Area 2: Digital Instruction + Pedagogy

Instructors on campus are increasingly interested in bringing DASH tools and methods into the classroom. They are looking to the University Libraries and CLA-OIT for assistance with course planning, tool selection, training, project guidance, and project hosting. DASH-related work here is a variation of the course and curriculum integration services offered by liaison librarians, curators, and the Media Outreach and Learning Spaces Librarian. This includes course development, assignment consultations, content awareness, and instruction on research skills, tools, and methods. As with project consultations, the level of support provided varies depending on the course objectives, potential impact, organizational capacity, and sustainability. Tier 1 and 2 services are most common. Services are delivered through a combination of in-Libraries experts and campus partners.

Common activities:

- Consultation and guidance in the areas of:
 - Course & assignment design
 - Tool and method selection
- Teaching limited course sessions
- Project management
- Coordinating services with support partners

Service team: Small, ad-hoc teams will be developed based on the level of support needed and available for a course and the tools and methods used in the course. The team formation process will be driven by the service tier (see above). This may include the Digital Humanities Specialist, Media Outreach and Learning Spaces Librarian, the liaison librarian(s) for the department(s) involved, relevant curators, eLearning coordinators, instructional technologists, tool and method experts, and campus partners. Campus partners will play a key role in sustainable provision of instructional integration services. For example, courses requiring programming and project hosting services may look to CLA-OIT for assistance.

Examples:

Tier 1 support: Consultation with a faculty member to discuss available tools, DASH methods, assignment possibilities; single training sessions on a DASH tool or method

Tier 2 support: Developing a course plan with a faculty member; multiple education sessions in a course; limited project guidance for student projects

Tier 3 support: Co-teaching for a course; participating in departmental curriculum development

Area 3: Workshops + Training

While considerable training and education is related to specific courses or research consultations, some workshop needs are independent of these contexts. There is demand from faculty, staff, and students on the University of Minnesota campus for hands-on training with a variety of DASH tools. This knowledge can be a precursor for experimentation with new methodologies and new research. There is also a need for training aimed at staff in the University Libraries and support units on campus to facilitate provision of next generation services. There are multiple potential methods to provide this training, including the exploration of regional partnerships to coordinate and supply training. As with other areas, the most sustainable option for providing necessary training is to tap existing, distributed expertise on campus.

Common activities:

- Standalone workshops on tools, offered by University Libraries and campus partners
- Event series: Education
- Summer bootcamp with intensive training in DASH tools and methods
- Re-skilling for next generation services: workshops and learning projects

Service team: Workshops will be coordinated by the Digital Humanities Specialist with support from departmental staff. Training sessions will be provided by individuals across campus, dependent on available expertise. For example, the Digital Humanities Specialist would provide training on Omeka, the Copyright Librarian may provide a workshop on copyright issues and DASH research, and U-Spatial would provide training on GIS tools.

Examples:

Tier 1 support: Single workshops on Omeka, GEPHI, or other core tools

Tier 2 support: Development of a workshop series on DASH tools, methods, and critical issues

Tier 3 support: Planning and management for a DASH pilot/learning project conducted by a University Libraries department

Area 4: Community Building

Due to the highly collaborative and emergent nature of DASH research, community-building is critical for the initiation of new research, sharing of ideas, and development of new partnerships. The DASH initiative seeks to develop campus and regional communities composed of faculty, students, and staff using DASH-related tools and methodologies in diverse disciplines to transform scholarship and pedagogy.

Common activities:

- Event series: Inspiration + Discussion
- Open learning communities
- Website showcasing local projects and resources
- Regional partnership building via planning meetings and events, such as Spark Fest

Service team: Some community building events will be coordinated by the Digital Humanities Specialist with support from University Libraries staff, creating small project teams when needed. Large-scale events will be planned and implemented by short-term project teams.

Examples:

Tier 1 support: DASH website

Tier 2 support: Coordination of open learning community featuring discussions by individuals learning and working with Omeka, GEPHI, Scalar, etc.

Tier 3 support: IAS Collaborative on Critical Code Studies; Spark Fest

Sustainability Plan

Governance and Personnel

Multiple models of service and support are being tested for effectiveness and sustainability in the present, pilot phase of the DASH initiative. Approval for service pilots is driven by the support tier and anticipated level of resource demand.

Tier 1: Activities are conducted or coordinated by the **Digital Humanities Specialist** with support from necessary experts dependent on availability. Additional support is provisioned through targeted referrals.

Tier 2: Activities are coordinated by the **Digital Humanities Specialist** in consultation with the **Arts & Humanities department director**. Tier 2 projects may require the development of an ad hoc support team, which will be developed as needed by the Digital Humanities Specialist.

Tier 3: Activities are reviewed, prioritized, and approved by the **DASH Steering Committee** based on project objectives, strategic fit, required resources, and available capacity. The Steering Committee also meets regularly to review program progress, discuss resource requirements, and set programmatic direction.

Pilot consultations and digital teaching trials are providing necessary data points on common project types, workflows, necessary services, and resource demands. The DASH Course and Curriculum Sustainability project team will address sustainability issues for Digital Instruction + Pedagogy Services in summer 2014, and a similar examination of Research Project Consultation Services is anticipated in 2015.

Budget

Due to the pilot nature of the DASH initiative, budget requests for DASH projects will be developed as needed. The funding model will be reviewed in 2015 and revised based on data about resource and service requirements gathered during this pilot phase.

Program Assessment

The DASH program will be reviewed and assessed in 2015, examining a number of potential outcomes and correlations:

- Evaluation of campus research output
 - DASH-related research projects
 - Faculty and graduate student grants for DASH-oriented projects
 - Faculty and graduate student publications and conference presentations on DASH-oriented topics
 - Model workflows for DASH projects and workset curation are defined and described
- Evaluation of campus teaching and student outcomes
 - Courses implementing DASH methods, tools, and topics
 - Level of student engagement and critical thinking development
 - Graduate student admissions for undergraduates engaging DASH projects and research
 - Humanities PhD placement in academic and alt-ac positions
- Evaluation of community development and engagement
 - Development of interdisciplinary partnerships
 - Active attendance at DASH events and training opportunities on campus and/or in the region

Appendix A: Links to the University Libraries' 2011-2013 Strategic Directions

1. Content & Collections: *Stewardship in a Global Context*

Strategies:

- Exploiting data and content we already have, from sources such as the UDC, Libraries data, ASC content (digitized and undigitized), HathiTrust, and DPLA
- Making new sources of data available (i.e., including provision for data mining in standard library licenses) for scholars who want to use these materials for text/data mining
- Supporting alternative publishing models emerging in digital humanities scholarly communication, potentially through infrastructure hosting, curation, or platform recommendations

2. Access: *Enabling Robust Information Discovery and Delivery*

Strategies:

- DASH portal as key resource for access, featuring a curated guide to tools and methodologies; a Calendar of Events; a Showcase for projects on campus; a Media Archive for previous DASH events that are audio recorded and/or filmed; and means of communication for those interested in DASH
- Investigation and development of APIs as a means of access to local digital collections; promotion of APIs as means of access to national collections, such as HathiTrust

3. Research and Scholarship: *Enhancing Individual Productivity and Community Discourse*

Strategies:

- Fostering a community of DASH at the U of M via event series, open learning communities, and virtual mechanisms to help individuals and departments participate in conversations about how DASH intersects with (and perhaps transforms) disciplinary field(s), engage in new projects, and gain additional research skills
- Supporting/partnering on new DASH projects, with various levels of Libraries collaboration (from consultation to deep collaboration)
- Supporting alternative publishing models emerging in digital humanities scholarly communication, potentially through infrastructure hosting, curation, or platform referrals

4. Teaching and Learning: *Strengthening Campus Capacity and Enriching Student Experience*

Strategies:

- Consultation with instructors on methods for enhancing student learning through DASH active learning projects
- Co-developing and/or co-teaching emerging courses on digital humanities and digital scholarship
- Helping to facilitate emerging pedagogies, incorporating more digital tools in a critical way, through education series

5. Organization: *Developing Agility and Advancing Efficiencies*

Strategies:

- DASH pilot projects to build staff facility with DASH/DH skills and methodologies, enabling richer dialogue with campus scholars and developing a broad base of support. An example of this is underway at Columbia University: Developing Librarian project, <http://www.developinglibrarian.org/>.
- Structured series of workshops, building on concepts from the British Library training model: <http://dh2013.unl.edu/abstracts/ab-264.html>.